

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Docket No: Q60831

Toshio KOGA

Appln. No.: 09/688,834

Group Art Unit: 3694

Confirmation No.: 1858

Examiner: Susanna M. Meinecke Diaz

Filed: October 17, 2000

For: VEHICLE-ONBOARD ETC APPARATUS

**REPLY BRIEF PURSUANT TO 37 C.F.R. § 41.41**

**MAIL STOP APPEAL BRIEF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. § 41.41, Appellant respectfully submits this Reply Brief in response to the Examiner's Answer dated December 28, 2007. Entry of this Reply Brief is respectfully requested.

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**STATUS OF CLAIMS**

Claims 1-7 are all the claims pending in the present application. Claims 1-7 have been finally rejected, and are the subject of this Appeal.

**GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

1. Claims 1-5 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Fuyama (U.S. Patent No. 6,259,376), hereinafter referred to as Fuyama '376.
2. Claims 6 and 7 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Fuyama '376 in view Fuyama (U.S. Patent No. 6,834,267), hereinafter referred to as Fuyama '267.

**ARGUMENT**

In the *Response to Argument* section of the Examiner's Answer, the Examiner responds to Appellants arguments set forth in the Appeal Brief dated September 20, 2007. In response, Appellants maintain that the present invention, as claimed, is patentable over the applied references at least based on the previously submitted arguments and the arguments set forth below.

**A. Fuyama '376 does not render claims 1-5 unpatentable.**

- A1. Fuyama '376 does not disclose or suggest each and every one of the elements set forth in claim 1.

In the Appeal Brief dated September 20, 2007, Appellants argued that Fuyama '376 does not disclose or suggest at least the following features of claim 1:

- A. "vehicle speed detecting means for detecting a speed of a motor vehicle which passes through a toll gate station equipped with an electronic toll collection system,"
- B. "measuring means for measuring reception field intensity of the received electronic toll collection information within a communication coverage area," and
- C. "decision means for making decision on the basis of said detected vehicle speed and said measured reception field intensity as to a location within said communication coverage area where electronic toll collection information communication can be started while sustaining favorable reception field intensity at said detected vehicle speed, to thereby allow said communication means to perform communication processing on the basis of result of said decision."

In the *Response to Argument* section of the Examiner's Answer, the Examiner alleges:

Appellant argues, "nowhere does Fuyama '376 disclose or suggest a vehicle speed detecting means (which constitutes a part of an electronic toll collection apparatus) for detecting the speed of a motor vehicle which passes through a toll gate station equipped with an electronic toll collection system" (page 10 of the Appeal Brief). Any velocity determination (as taught by Fuyama '376 uses the velocity measurement to determine a sufficient time interval for establishing a communication link (col. 5, lines 1-54). This time interval is ultimately derived from a distance measurement. "Generally, the predetermined interval is twice or three times the time interval for establishing the communication link, for example 500 ms, which corresponds (slightly longer) to the interval (482 ms) necessary for travelling p1 to p2 at 30 Km/h. The predetermined interval is longer than the interval that the vehicle travels from the p1 to p2 at a relatively high speed, so that if the speed of the vehicle 35 is high (more than 30 Km/h), the communication link is judged in response to the second sensor s2." (col. 5, lines 41-50).

In response, contrary to the Examiner's assertion, Appellant submits that Fuyama '376 does not use a velocity measurement to determine a sufficient time interval for establishing a communication link. In col. 5, lines 1-54 of Fuyama '376, the only mention of the velocity of the vehicle is in the context of indicating the results of establishing a communication link when a fast moving vehicle enters a particular area versus a slow moving vehicle. That is, the particular velocities of the vehicle identified in the cited portion of Fuyama '376 are only provided to indicate the process of establishing a communication link with vehicles traveling at varying velocities. Furthermore, the time interval in Fuyama '376 is clearly not being determined based on the speed of vehicles which passes through a toll gate station equipped with an electronic toll collection system, as described in claim 1, as the interval discussed in Fuyama '376 is a

predetermined interval. This interval in Fuyama '376 is predetermined simply based on calculated time for establishing a communication link with a vehicle. Once the predetermined interval is set, whether a communication link can be established with a particluar vehicle based on the vehicle's velocity is a function of the interval that has already been established (i.e., predetermined). Thus, no detection of "a speed of a motor vehicle which passes through a toll gate station equipped with an electronic toll collection system," is ever performed in Fuyama '376.

Yet further, Appellant maintains that the facts of *In re Japikse*, which was cited by the Examiner to support her argument, are distinguishable from those in the present case because *In re Japikse* involved claims to a hydraulic power press which read on the prior art except with regard to the position of the starting switch. The claims in *In re Japikse* were held unpatentable because shifting the position of the starting switch would not have modified the operation of the device. Here, this case involves the constitution of several different elements of a vehicle-onboard electronic toll collection apparatus, and the location of the elements (fixed or mobile) do have an impact on the operation and the functionality of the system. The components in Fuyama '376 that allegedly correspond to the claimed elements, as set forth in claim 1, do not constitute a simple rearrangement of parts on a vehicle-onboard electronic toll collection apparatus; the alleged components of Fuyama '376 are NOT provided on a vehicle at all. The alleged corresponding elements in Fuyama '376 appear to be components taken from a wholly fixed roadside system and not a vehicle-onboard electronic toll collection apparatus. Therefore, the

result of *In re Japikse* is not applicable here as this case does not involve a simple arrangement of parts on a single apparatus.

In the Examiner's Answer, the Examiner further alleges that Appellant has not "explained how the specific position of the recited elements in the claimed invention provides a different operation (compared to the prior art) or how variation of the position of these elements yields an unobvious benefit over the prior art."

In response, Appellant submits that the claimed apparatus, which comprises various elements, can provide a significantly different operation and can be comparatively less expensive than the alleged corresponding components of Fuyama '376, which are provided at a highway, street and various other points. The components in Fuyama '376 that allegedly satisfy elements A-C of the claimed invention clearly do not constitute an apparatus. Thus, the operation of the claimed invention can be simpler, more efficient, and less expensive. Furthermore, the alleged corresponding elements in Fuyama '376 are not provided on a vehicle. And as mentioned previously, in Fuyama, the communication interval is predetermined and does not take speed into account. Therefore, there is no way to manage communications links with vehicles moving at different speeds, which can cause Fuyama's system to miss communicating with a quickly moving vehicle, for example.

Yet even further, Appellant respectfully points out that other arguments were submitted in the Appeal Brief specifically with respect to elements B and C, which are quoted above, however the Examiner does not respond to these specific arguments in the Examiner's Answer.

At least based on the foregoing, as well as the previously submitted arguments, Appellant maintains that claim 1 is patentably distinguishable over Fuyama '376.

Appellant submits that dependent claims 2-5 are patentable at least by virtue of their dependencies from independent claim 1.

- A2. Fuyama '376 does not disclose or suggest at least, "wherein said decision means is so designed as to convert the distance data to time data based on area entering speed," as recited in claims 4 and 5.

Further, with respect to claims 4 and 5, Appellant previously argued that Fuyama '376 does not disclose or suggest converting the distance data to time data based on an area entering speed, as recited in claims 4 and 5. Further, Appellant argued that even if, *arguendo*, a time interval is ultimately derived from a distance measurement, Fuyama '376 only discusses a predetermined interval, therefore Fuyama could not possibly disclose or suggest converting distance data to time data based on an area entering speed. Yet further, Appellant previously argued that there is no support for the Examiner's conclusion that the time interval determination must be made as a car is approaching a toll area. *See page 12 of September 20<sup>th</sup> Appeal Brief.*

In the Examiner's Answer, the Examiner indicates that she reviewed the specification to get a better understanding of what is being recited in claims 4 and 5, and generally argues that "Fuyama '376 talks about defining predetermined relationships between distances/velocities and timing in order to more effectively establish desired communication links." However, in response, Appellants maintain that even if, *arguendo*, Fuyama '376 talks about establishing a predetermined interval for establishing a communication link, this teaching does not satisfy the operation of dynamically converting distance data to time data based on an area entering speed of a vehicle.

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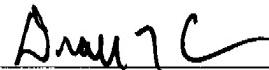
**B. Neither Fuyama '376 nor Fuyama '267, either alone or in combination renders claims 6 and 7 obvious.**

Appellant submits that claims 6 and 7 are patentable at least by virtue of their respective dependencies from independent claim 1. Fuyama '267 does not make up for the deficiencies of Fuyama '376.

**CONCLUSION**

For the above reasons as well as the reasons set forth in Appeal Brief, Appellant respectfully requests that the Board reverse the Examiner's rejections of all claims on Appeal. An early and favorable decision on the merits of this Appeal is respectfully requested.

Respectfully submitted,



Diallo T. Crenshaw  
Registration No. 52,778

SUGHRUE MION, PLLC  
Telephone: (202) 293-7060  
Facsimile: (202) 293-7860

WASHINGTON OFFICE  
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